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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,940	11/13/2003	Kenneth J. Klein	BI-16	6574

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EXAMINER	
HYUN, PAUL SANG HWA	
ART UNIT	PAPER NUMBER
1743	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/705,940	KLEIN ET AL.	
	Examiner	Art Unit	
	Paul S. Hyun	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

Claim Objections

Claim 8 is objected to because of the following informalities:

"a racks" recited in line 1 of the claim is grammatically incorrect.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims **8-10** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites that the dry down station evaporates the vessel assemblies. It is unclear what the claim is trying to convey. Claim 1 already recites that the solvent is evaporated and it does not appear that Applicants intended to recite that the actual vessel assemblies are evaporated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims **1, 5-7, 11, 12, 14 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumeyer et al. (US 5,698,179) in view of Coe (US 6,102,871).

Neumeyer et al. disclose a method and a system for isolating a sample eluted from a high pressure liquid chromatography (HPLC) column (see lines 30-40, col. 16). The method comprises the step of collecting a flow stream of the chromatography column in a test tube, evaporating the solvent to isolate the sample, and re-solvating the sample in a solvent. The method disclosed by the reference differs from the claimed

method in that the reference does not disclose the step of attaching a vessel extender to the test tube.

Coe discloses the method of attaching a funnel to a test tube to facilitate the collection of a fluid sample (see lines 25-30, col. 2). In light of the disclosure of Coe, it would have been obvious to attach a funnel to the test tube when conducting the method disclosed by Neumeyer et al. The funnel would facilitate the collection of the elution from the chromatography column.

With respect to claims 5 and 15, it would have been obvious to one of ordinary skill in the art to provide an automated means such that it automates the attachment of the funnel to the test tube. *See In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958), a case in which the Court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.

With respect to claim 7, although Neumeyer et al. do not explicitly disclose how the solvent is evaporated, it is well-known in the art that one way to evaporate a solvent is to heat it. It would have been obvious to one of ordinary skill in the art to evaporate the solvent by heating it.

Claims **2 and 8-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumeyer et al. in view of Coe as applied to claims 1, 5-7, 11, 12, 14 and 15, and further in view of Natelson (US 3,635,394).

Neither Neumeyer et al. nor Coe disclose the use of a rack.

Natelson discloses the use of test tubes to collect fractions from a chromatography column wherein the test tubes are supported by a test tube rack (see lines 10-13, col. 5).

In light of the disclosure of Natelson, it would have been obvious to one of ordinary skill in the art to place the test tube in a rack when conducting the modified method disclosed by Neumeyer et al. and Coe so that the test tube does not have to be manually held while collecting the elution.

With respect to claim 9, it is well known in the art to rinse the funnel with a solvent when a funnel is used facilitate the collection of a solute sample. This step ensures that no residue is remained on the funnel. Therefore, it would have been obvious to one of ordinary skill in the art to rinse the funnel prior to evaporating the solvent to ensure that all of the sample is transferred to the test tube.

Claims **3 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumeyer et al. in view of Coe as applied to claims 1, 5-7, 11, 12, 14 and 15, and further in view of Marshall et al. (US 4,209,611).

Neither Neumeyer et al. nor Coe disclose a balance or the step of weighing the sample to determine the amount of sample collected.

Marshall et al. disclose a method for determining the sample collected from the elution of a chromatographic column, the method comprising the step of collecting the elution in a container, evaporating the solvent, and weighing the dried sample (see lines 35-60, col. 7). Although the reference does not explicitly disclose that the weight is

determined by subtracting the weight of the empty container from the weight of the container plus the dried sample, it is well known in the art that sample weight determinations are made in this manner.

In light of the disclosure of Marshall et al., it would have been obvious to one of ordinary skill in the art to provide a balance and weigh the dried sample isolated by the modified system and method disclosed by Neumeyer et al. and Coe prior to re-solvating the dried sample so that the amount of sample collected can be determined.

Claim **4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Neumeyer et al. in view of Coe as applied to claims 1, 5-7, 11, 12, 14 and 15, and further in view of Nova et al. (US 5,961,923).

Neither Neumeyer et al. nor Coe disclose the step of labeling the test tube.

Nova et al. disclose the use of bar codes for tagging chromatography tubes (see lines 40-47, col. 44).

In light of the disclosure of Nova et al., it would have been obvious to one of ordinary skill in the art to label the test tube used in the modified method disclosed by Neumeyer et al. and Coe using bar codes so that the content of the tube can be easily identified.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul S. Hyun whose telephone number is (571)-272-8559. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PSH
12/21/06

Jill Warden
Supervisory Patent Examiner
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